AMENDMENTS TO THE CLAIMS

Claims 1-25 (Cancelled)

26. (Original) A method for diagnosing cancer comprising detecting the presence of a cancer marker in a biological sample from a human or animal subject, wherein the cancer marker comprises an oligosaccharide that comprises two or more linked sialic acid residues.

27. (Original) The method of claim 26 wherein the cancer marker that is detected is a disialylated oligosaccharide or trisialylated oligosaccharide.

28. (Currently Amended) The method of claim 26 ~~or 27~~ wherein the cancer marker that is detected has the structure Hex-HexNeuAc-$NeuAc_3$.

29. (Currently Amended) The method of claim 26 ~~according to any one of claims 25 to 28~~ wherein the cancer is ovarian cancer.

30. (Currently Amended) The method of claim 26 ~~according to any one of claims 25 to 29~~ wherein the biological sample comprises blood or serum.

Claims 31-33 (Cancelled)

34. (Currently Amended) The method of claim 26 ~~according to any one of claims 25 to 30~~ wherein the cancer marker is detected by a process comprising staining the cancer marker with a dye that binds to the cancer marker.

35. (Original) A method for identifying a candidate therapeutic target, which method comprises:

(i) providing a biological sample from an individual suffering from an abnormal physiological condition;

(ii) subjecting the sample to one or more separation steps to resolve one or more of glycoconjugates from other components in the sample;

(iii) treating the one or more of glycoconjugates to release glycans;

(iv) analysing the released glycans by mass spectrometry to produce a glycosylation profile; and

(v) identifying a glycan whose levels are altered in the profile obtained in step (iv) as compared with a control profile, the identified glycan being the identified candidate therapeutic target.

36. (Currently Amended) The ~~A~~ method of claim 35 further comprising ~~for identifying a candidate therapeutic target, which method comprises:~~

~~(i) providing a biological sample from an individual suffering from an abnormal physiological condition;~~

~~(ii) subjecting the sample to one or more separation steps to resolve one or more glycoconjugates from other components in the sample;~~

~~(iii) treating the one or more of glycoconjugates to release glycans;~~

~~(iv) analysing the released glycans by mass spectrometry to produce a glycosylation profile; and~~

~~(v) identifying a glycan whose levels are altered in the profile obtained in step (iv) as compared with a control profile; and~~

~~(vi)~~ identifying a glycoconjugate present in the biological sample from which the glycan is derived, the identified glycoconjugate being the identified candidate therapeutic target.

37. (New) The method of claim 26 wherein the cancer marker comprises an oligosaccharide comprising a structure selected from the group consisting of:

(i)NeuAc-(Hex-)HexNAc;

(ii)NeuAc-Hex-HexNAc;

(iii) Hex-(Hex-HexNAc-)HexNAc;

(iv) NeuAc-Hex-(NeuAc-)HexNAc;

(v) Hex-(Hex-HexNAc-)HexNAc + NeuAc;

(vi)Hex-HexNAc +$NeuAc_3$;

(vii) Hex-(Hex-HexNAc-)HexNAc + $NeuAc_2$;

(viii)$Hex_2HexNAc_2(SO_3H)_1$;

(ix) $Hex_2HexNAc_2NeuAc$;

(x) $Hex_2HexNAc_2NeuAc(SO_3H)$;

(xi) $DeoxyHex_1Hex_2HexNAc_2NeuAc(SO_3H)$;

(xii) $Hex_2HexNAc_2NeuAc_2$;

(xiii) $DeoxyHex_1Hex_2HexNAc_2NeuAc$;

(xiv) $Hex_2HexNAc_2NeuAc_2(SO_3H)$,

or a part thereof.

38. (New) The method of claim 26 wherein the cancer marker is detected by mass spectrometry.

39. (New) The method of claim 26 wherein the cancer marker is detected by a process comprising contacting an affinity ligand that binds to the cancer marker with the sample for a time and under conditions sufficient for binding to occur and then detecting the binding.

40. (New) The method of claim 39 wherein the affinity ligand is an antibody.

41. (New) The method of claim 39 wherein affinity ligand is a lectin or selectin.